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HOW I DO IT

Prostatic Aspiration Cytology Using Lumbar Puncture Needle

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Fine-needle aspiration cytology (FNAC) is well established in the diagnosis of carcinoma of prostate. We describe a simple, inexpensive method of FNAC, using a lumbar puncture (LP) needle and a disposable insulin syringe as a sheath, rather than a Franzen's needle, which is not available at most surgical centers in developing countries.

METHOD

The nozzle of a disposable 1-ml insulin syringe is cut obliquely, creating a bevel (Fig. 1A). Usually the needle protrudes 10 mm from the nozzle when inserted fully inside the barrel (Fig. 1B). If the syringe is longer, the barrel has to be cut at the other end, to shorten it (Fig. 2). The plunger is reinserted into the shortened syringe barrel. The patient lies in the left lateral position. No anesthesia is required. The gloved index finger of the right hand is well lubricated with jelly, and the insulin syringe is held as shown in Figure 3, with the bevel facing up and the nozzle point just short of the fingertip. The plunger may be withdrawn halfway through the syringe to increase the length for easy grasp. The finger holding the syringe is introduced into the rectum, and rotated anteriorly to feel the abnormal prostatic nodule. The plunger is now completely withdrawn, while the bevel of the syringe is kept firmly pressed against the abnormal nodule, with the index finger. A 21-gauge metal or disposable LP needle with stilette is then introduced through the syringe and penetrated 5 mm into the prostatic nodule, feeling the grittiness of the puncture. Once the needle has entered the suspicious nodule, the finger in the rectum is withdrawn, allowing the syringe to hang around the needle while the needle is grasped carefully with both hands. The stilette is withdrawn and a 10-ml disposable syringe is attached to the needle. Suction is then applied to the needle while it is moved to and fro inside the

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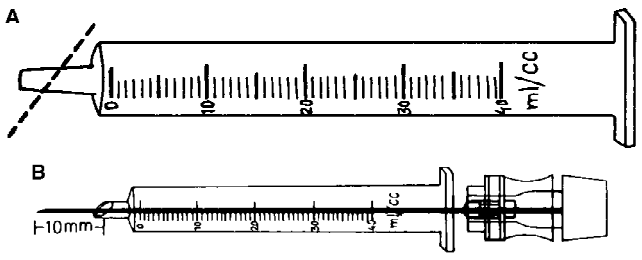

Fig. 1. **A:** The nozzle of the insulin syringe is cut along the dotted lines obliquely, as shown, creating a bevel. **B:** The tip of the LP needle normally protrudes 10 mm beyond the nozzle when inserted fully inside.

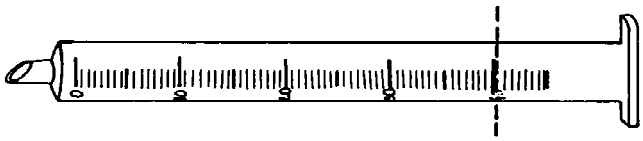

Fig. 2. If the syringe is longer than normal, the barrel should be shortened by cutting it at the other end (dotted lines), to the required size.

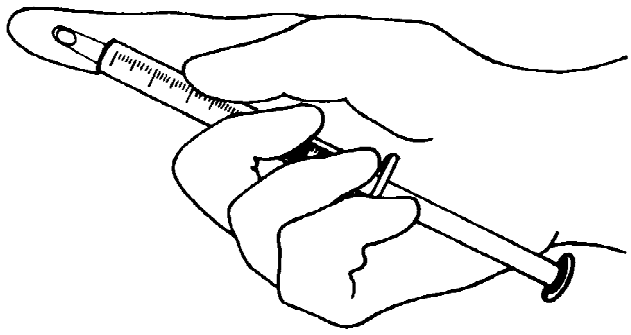

Fig. 3. Schematic diagram showing the grasp of the syringe in the gloved hand. Note that the nozzle is placed short of the fingertip, to permit palpation of the prostatic nodule.

nodule. Two or three smears are made. The method of fixing and staining is the same as for routine FNAC.

The insulin syringe barrel acts like a sheath protecting the surgeon's finger from any chance of accidental prick from the needle and also prevents pricking of the patient's skin or mucosa of the anorectum while it is introduced through the rectum. It also guides the needle tip to the required area fairly accurately. Also, the stillette of the LP needle prevents contamination of the needle lumen with faeces during puncture, hence resulting in a slide free from foreign matter.

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